

U.S. Patent Application Serial No. 10/699,832  
Amendment filed May 24, 2006  
Reply to OA dated January 6, 2006

**AMENDMENTS TO THE CLAIMS:**

Please amend claims 1, 3-5, 10, 12 and 13, as follows. This listing of claims will replace all prior versions, and listings, of claims in the application:

**Listing of Claims:**

**Claim 1 (Currently amended):** ~~A monocrystalline gallium nitride localized substrate~~ [[,]]  
~~comprising: for an electronic-optical united device used for fabricating an electronic-optical united~~  
~~device mixedly incorporating an electronic device and an optical device, comprising a~~  
monocrystalline silicon substrate [[;]] including:

one area having at least one layer, wherein none of the layers of said one area is  
metamorphosed; and

another area, comprising:

~~a region of silicon carbide formed by locally metamorphosing the monocrystalline silicon~~  
~~substrate into silicon carbide; and~~

a layer of silicon carbide metamorphosed by locally carbonizing the corresponding area in  
the monocrystalline silicon substrate; and

a region layer of monocrystalline gallium nitride grown on the region said layer of silicon  
carbide.

**Claim 2 (canceled)**

U.S. Patent Application Serial No. 10/699,832  
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**Claim 3 (Currently amended):** A ~~monocrystalline gallium nitride localized~~ substrate for an electronic-optical united device according to claim 1, said one area further comprising:

a ~~region~~ layer of silicon nitride formed on the monocrystalline silicon substrate, ~~the region of silicon nitride positioned other than in said region of monocrystalline gallium nitride.~~

**Claim 4 (Currently amended):** A ~~monocrystalline gallium nitride localized~~ substrate for an electronic-optical united device according to claim 1, said one area further comprising:

a ~~region~~ layer of silicon oxide formed on the monocrystalline silicon substrate, ~~the region of silicon oxide positioned other than in said region of monocrystalline gallium nitride.~~

**Claim 5 (Currently amended):** A ~~monocrystalline gallium nitride localized~~ substrate for an electronic-optical united device according to Claim 1, wherein said monocrystalline silicon substrate is an SOI substrate.

**Claims 6-9 (Canceled).**

**Claim 10 (Currently amended):** A ~~monocrystalline gallium nitride localized~~ substrate for an electronic-optical united device according to Claim 3, wherein said monocrystalline silicon substrate is an SOI substrate.

U.S. Patent Application Serial No. 10/699,832  
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**Claim 11 (Previously presented):** A monocrystalline gallium nitride localized substrate according to Claim 4, wherein said monocrystalline silicon substrate is an SOI substrate.

**Claim 12 (Currently amended):** A ~~monocrystalline gallium nitride localized~~ substrate for an electronic-optical united device according to claim 3, said one area further comprising:

a ~~region~~ layer of polycrystalline gallium nitride grown on the ~~region~~ layer of silicon nitride.

**Claim 13 (Currently amended):** A ~~monocrystalline gallium nitride localized~~ substrate for an electronic-optical united device according to claim 4, said one area further comprising:

a ~~region~~ layer of polycrystalline gallium nitride grown on the ~~region~~ layer of silicon oxide.